Serial No. 10/533,062   TAM-104
Amendment
Responsive to Office Action dated February 19, 2009

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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1.   (Currently Amended) A system development method comprising:

a step of inputting program descriptions which define a plurality of devices by employing a Java program language capable of describing parallel operations;

a step of converting the input program descriptions into an intermediate expression;

a step of generating parameters which satisfy a real-time restriction, for the intermediate expression; and

a step of synthesizing circuit descriptions which are based on a hardware description language, on the basis of the generated parameters;

wherein the program descriptions define the devices on a single bus by using a run method of the Java program language, and define clock synchronizations of the device by using barrier synchronizations,

wherein in the run method, program codes which are to be executed in a thread constituting a multi-thread are described,

imposing ~~wherein restrictions which are~~ an inhibition of dynamic instantiation restriction and an inhibition of a start method call from the run method restriction ~~are imposed~~ on the program descriptions by employing a Java program language,

wherein the intermediate expression is a member selected from the group consisting of a concurrent control flow flag, a temporal automaton with a concurrent parameter, and a

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temporal automaton with parameters,

wherein parametric model checking is performed for the parameter generation, and

wherein the real-time restriction is given by RPCTL.

2. – 5. (Canceled)

6.   (Currently Amended) A data processing system comprising:

a computer;

said computer inputting program descriptions which define a plurality of devices by

employing a Java program language capable of describing parallel operations, converting the

input program descriptions into an intermediate expression, generating parameters which

satisfy a real-time restriction, for the intermediate expression, and synthesizing circuit

descriptions which are based on a hardware description language, on the basis of the

generated parameters;

wherein the program descriptions define the devices on a single bus by using a run

method of the Java program language and define clock synchronizations of the devices by

using barrier synchronizations;

wherein in the run method, program codes which are to be executed in a thread

constituting a multi-thread are described,

wherein restrictions are imposed on the program descriptions which are an inhibition

of dynamic instantiation restriction and an inhibition of a start method call from the run

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method restriction are imposed on the program descriptions by employing a Java program

language,

  wherein the intermediate expression is a member selected from the group consisting

of a concurrent control flow flag, a temporal automaton with a concurrent parameter, and a

temporal automaton with parameters,

  wherein parametric model checking is performed for the parameter generation, and

  wherein the real-time restriction is given by RPCTL.

7.   (Canceled)

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